

REMARKS

Claims 1-2 and 4-20 are currently pending in the patent application. The Examiner has rejected Claims 1, 4-10, 11, 13 and 16-18 under 35 USC 103 as unpatentable over the teachings of Yuasa in view of Arora; and, Claims 2, 12, 14-15 and 19-20 under 35 USC 103 as being unpatentable over the teachings of Yuasa in view of Arora and further in view of Aimoto. For the reasons set forth below, Applicants respectfully assert that all of the pending claims, as amended, are patentable over the cited prior art.

The present application teaches and claims a system and method for providing switching in Ethernet networks. In accordance with the invention, a switch in the network dynamically assigns hosts to logical groups of hosts for a requested session, such that the hosts participating in the data communication session are assigned to the same group. The switch then associates each group with a service class indicative of requirements for forwarding data across the switch for data communications between hosts of the group during the session. The switch forwards received data across the switch in a manner dependent on the service class of the group. During operation, the switch also monitors traffic congestion and, if required based on the traffic

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congestion, the switch disables communications between hosts of at least one of the groups in order to satisfy the forwarding requirements for at least one service class. The language of independent claims 1, 17 and 19 expressly recites that the switch dynamically performs group assignment, associates each group with a service class, forwards communications in a manner dependent on the service class, and disables communications as needed to satisfy the requirements of at least one service class.

Applicants respectfully assert that the Yuasa patent does not teach the invention as claims, alone or in combination with the teachings of Arora. The Yuasa patent teaches a virtual LAN system wherein virtual groups are formed based on elements having physical or logical attributes in common, as expressly taught in the cited teachings found in Col. 8 at lines 64-65. Traffic is then allocated in traffic bands to the groups, as taught in Col. 19 at lines 19-24, for example, if the grouped elements have attributes consistent with the communication of video information, the virtual group be given higher priority than another virtual group which is simply exchanging text messages. Applicants respectfully submit that Yuasa does not teach the claimed step or means for a switch to

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dynamically assigning hosts to logical groups of hosts for a session in response to a session request such that the hosts participating in a data communication are assigned to the same group. Yuasa teaches a static assignment of entities to virtual groups based on attributes, as opposed to the claimed step of assigning hosts to a logical group of hosts based on a communication session request. Further, under Yuasa, the assignment is done by integrated network service equipment at a center node (see: Col. 13, lines 61-62, Col. 14, lines 18-23) and is not done by the switch. Under Yuasa, the grouping is not updated unless there are physical changes to the network. The virtual group assignment information is distributed throughout the network so that network components (e.g., LAN switches) maintain virtual group routing tables (e.g., Col. 20, lines 13-14). Further, as earlier argued, the Yuasa group assignment based on attributes is static for the life of a given network configuration. The Yuasa group assignment is not done for each communication session.

With respect to the claimed means and step for said switch of the network to associate each group with a service class indicative of requirements for forwarding data across the switch for data communications between hosts in the

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group during the session and to forward received data across the switch in a manner dependent on the service class of the group to which hosts participating in the data communication are assigned, Applicants assert that Yuasa does not teach the claim features. Yuasa states, in the cited passage from Col. 8, line 66 through Col. 9, line 2, that a client address and priority are set in a virtual group registration table. Yuasa does not teach that a switch associates a group with a service class for communications during the one session, as is claimed. Further, the cited Yuasa teaching at Col. 9, lines 1-2 discloses "allocating unicast and broadcast traffic bands in group units." There is nothing in the cited passage which teaches or suggests forwarding received data across the switch in a manner dependent upon the service class that the switch assigned.

The Examiner has cited the teachings found in Col. 19, lines 25-29 against the claimed traffic monitoring and disabling of communications between hosts in one or more groups to satisfy forwarding requirements of at least one service class. What Yuasa teaches in the cited passage is that the timing interval for scanning packets for lower priority groups is longer than the timing interval for higher priority groups. However, Yuasa does not teach of

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suggest monitoring of traffic. Further, Yuasa does not teach or suggest disabling communications. The Examiner has concluded that "[i]f conditions are congested, which would be discovered by the priority scheme of Yuasa, lower priority communications will be disabled". However, Applicants contend that the Yuasa teachings do not support that conclusion. The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination "must be based on objective evidence of record" and that "this precedent has been reinforced in myriad decisions, and cannot be dispensed with." (In re Lee, 277 F. 3d 1338, 1343 (Fed. Cir. 2002)). Moreover, the Federal Circuit has stated that "conclusory statements" by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved "on subjective belief and unknown authority" (Id. at 1343-1344). Clearly, therefore, since Yuasa does not teach or suggest monitoring of traffic, the Examiner cannot conclude that Yuasa monitors traffic nor that Yuasa disables communications based on monitored conditions.

The Examiner acknowledges that "[t]he group assignment being done dynamically for a session in response to a

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session request, and that (sic) the groups are associated with a service class during the session are missing from Yuasa." The Examiner concludes, however, that Arora discloses those features. The Arora patent is directed to a method and apparatus for dynamically forming emulated LANs for multimedia sessions. When a Multimedia Session Manager 401 at a client location initiates a session, an ELAN Configuration component 402 dynamically assigns IP addresses to the end-stations participating in the session. As with Yuasa, a switch does not dynamically assign hosts to a group. Rather, a central entity, in Arora the ELAN Configuration component, performs coordination of the participants of a group.

Applicants acknowledge that the central entity in Arora does create an ELAN for a particular multimedia session. However, under Arora, that ELAN is dynamically configured to provide a router-less path between the end-points, "configured to serve only the conferees of the multimedia session" (Col. 5, lines 31-40). The BUS allocated for the ELAN is created to serve "only those small number of LECs which are the participants of the multimedia session" (Col. 5, lines 24-26). Clearly there is not a teachings, or even a need under Arora, of priority handling or service classes,

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since only one session is being conducted on the relevant paths of the created ELAN. Arora does not teach or suggest service classes or any priority handling. Arora need not monitor traffic congestion on the ELAN, since no other communications are being routed along the ELANS paths. Further, Arora does not teach or suggest disabling communications of one or more groups based on traffic congestion to satisfy the forwarding requirements of one or more groups in a different service class, since only communications for the one ELAN group are being conducted along the ELAN. Accordingly, Applicants respectfully assert that the Arora patent does not supply the teachings which are missing from the Yuasa patent.

Applicants further note that, since Yuasa expressly teaches the static assignment of groups based on common physical attributes or common logical attributes, it would not be logical to take the groups with common attributes and change the grouping (i.e., modify Yuasa with Arora) simply because one member of the group wants to communicate with selected other members of that or another group. Static groupings by common physical or logical attributes would not logically be altered using the Arora teachings of creating an emulated LAN in response to a request at the Multimedia

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Session Manager. Such re-grouping might result in Yuasa components being grouped with other components that do not share physical or logical attributes, which would render Yuasa unworkable for its intended usage. Clearly, therefore, such a combination would not be suggested to one having skill in the art by a reading of the two patents.

Applicants respectfully assert that the Examiner has not established a *prima facie* case of obviousness against the pending claims. Since neither Yuasa nor Arora teaches or suggests a switch dynamically assigning hosts to a logical group in response to a session request, the switch associating of a service class to a group, the switch monitoring traffic congestion, and the switch disabling communications based on traffic congestion to satisfy the forwarding requirements for at least one service class, it cannot be concluded that the combination of teachings obviate the invention as expressly recited in the independent claims. Further, the additionally recited claims limitations, in the dependent claims, are not taught or suggested by the references.

The Examiner has further cited the teachings of the Aimoto patent in rejecting Claims 2, 12, 14-15 and 19-20. The Aimoto patent has been cited for its teachings related

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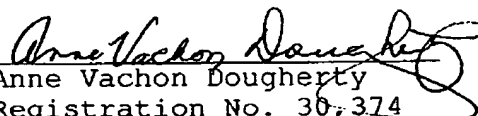


to treatment of cells of a traffic class that does not have any special contract for transfer rates. According to Aimoto, if no special contract exists, cells or packets can be selectively discarded to relieve traffic congestion. Aimoto makes a "discard" determination based on whether there is a contract for delivery of the cells/packets. Aimoto does not make a "discard" determination based on a service class guaranteed to a group. Since none of Yuasa, Arora, or Aimoto teaches associating a service class to a group and handling communications based on that assigned service class, it cannot be maintained that the combination obviates the invention as claimed.

Based on the foregoing amendments and remarks, Applicants request entry of the amendments, reconsideration of the rejections, and issuance of the claims.

Respectfully submitted,  
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